

**REMARKS**

The following remarks refer to the Official Action of March 16, 2004 and the subsequent advisory action of May 11, 2004.

**Rejection of claims 2-7 under 35 U.S.C. 112, 2nd Paragraph**

Claim 2 has been amended to place the recitation of "one of..." into standard Markush terminology. None of claims 3-7 have the terminology "one of..." and hence require no similar amendment.

**Rejection of claims 1-19 under 35 U.S.C. 112**

The reference to temperature in independent claims 1 and 19 has been removed.

**Rejection of claims under 35 U.S.C. 103(a)**

The Official Action on page 4, lines 7-18 asserts that it is apparent from the paragraph bridging pages 221 and 222 of Lee et al. that the flue gas contains alkaline particles based on the disclosure that calcium oxide and aluminum oxide are present in the flyash particles.

Chapter 3 of Singer entitled "Properties of Coal Ash" on page 3-2 presents Table I which shows that coal ash always contains SiO<sub>2</sub>, Al<sub>2</sub>O<sub>3</sub>, Fe<sub>2</sub>O<sub>3</sub> and CaO in combination. Table 2 of Lee et al. captioned "Model Fly Ash Compositions" does not show coal fly ash as containing both CaO and Fe<sub>2</sub>O<sub>3</sub>. Consequently, the compositions of Lee, which, in every case,

lack either CaO or Fe<sub>2</sub>O<sub>3</sub>, are not representative of commercial coal fly ashes. Furthermore the SiO<sub>2</sub> levels of six of the seven model fly ashes listed are higher than the maximum level described for commercial coal ash in the Singer reference. The single "in range" SiO<sub>2</sub> ash at 67% by weight contains no CaO and is, therefore, atypical of a commercial coal fly ash. Therefore, none of the model fly ash compositions of Lee et al. are representative of commercial coal ash as described in the Singer reference.

Singer et al. on pages 3-7 and 3-8 lists SiO<sub>2</sub> and Al<sub>2</sub>O<sub>3</sub> as acidic oxide constituents under the heading "Properties of Coal-Ash Components". This is clearly contrary to the assertion in the Official Action that Al<sub>2</sub>O<sub>3</sub> is alkaline. None of the model fly ash compositions in Table 2 of Lee et al. have acidic oxide constituents (i.e., Al<sub>2</sub>O<sub>3</sub> + SiO<sub>2</sub>) below 86% by weight of their composition. Thus, Lee et al. does not disclose the use of alkaline particles in the flue gas as stated in the Official Action. As stated in the previous Amendment, Lee et al. does not teach the use of alkaline solid particles in the flue gas as claimed in

independent claims 1 and 19. Accordingly, none of claims 1-19 are obvious over Lee et al. in view of Galbreath.

Accordingly, favourable reconsideration of the present application is respectfully solicited.

Respectfully submitted,

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